



THE INTERNATIONAL GROUP TECHNOLOGIES, INC.
AN INFRASTRUCTURE COMPANY

Consultant Assistance for SCAG Aviation Program

Status Report on High Occupancy Public Transportation to Airports

Presentation to Plan & Programs TAC

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EXPERIENCE | Transportation





Overview

- **Objective**
- **Scope**
- **Air Passenger Considerations in Using High Occupancy Public Transportation**
- **Airport Express Buses**
- **Projects**



Objective

- **Identify planned or conceptual new high occupancy public transportation projects serving airports that have the potential to influence ground access mode share and reduce vehicle trips to airports, for inclusion in the 2012 RTP**
- **Assess the impact on airport traffic of identified high occupancy public transportation projects**



Scope

- **Identify transit and rail projects that may influence airport access**
 - Source: Four-year RTIP, core RTP plan, long-range Strategic Plan, Metro LRTP, OCTA LRTP
 - Review available ridership estimates
- **Recommend most logical choices for new FlyAway routes to LAX and ONT**
 - Source: SCAG FlyAway Report, SCAG and LAWA staff
 - Review LAX and ONT markets from air passenger surveys
 - Provide rough ridership estimates and ground access trips diverted



Scope

- **Review ARTIC plans for high occupancy public transportation connections to ONT, LAX, SNA**
 - Source: SCAG, OCTA, LAWA, SNA, City of Anaheim
 - Review available ridership estimates
- **Review plans for high occupancy public transportation connections envisioned for BUR**
 - Source: SCAG, Bob Hope Airport and OLDA
 - Refine study concepts to be included in Strategic Plan



Challenges and Issues

- **Availability or level of detail of ridership forecasts**
- **Effectiveness of high occupancy public transportation services to airports to influence mode choice/reduce vehicle trips to airport**
- **Sponsorship of airport express buses**
 - **Airport Operator**
 - **Transit agencies**
 - **Private Sector**
 - **Other**
- **Potential role of CA High Speed Rail system in providing ground access connections to airports**

Factors Influencing Air Passenger Choice of High Occupancy Public Transportation

- **Ability of service to match chosen flight schedule**
 - **Sufficient frequency and hours of operation**
 - Arrive at airport 90-120 minutes prior to flight departure time
 - Depart airport 30-90 minutes after flight arrival time
 - Early morning and late evening service, 7 days per week
 - **Inadequate service: Metrolink - downtown Riverside and East Ontario**
 - Weekdays only, 6 trips per day in each direction, no morning service eastbound, etc.
 - **High quality service: Union Station FlyAway - downtown Los Angeles and LAX**
 - 365 days per year, 24 hours per day, half hourly service for most of day, hourly service from 1 a.m. to 5 a.m.

Factors: Air Pax Public Transportation Choice

- Travel times should be competitive with more commonly used modes

More commonly used modes typically provide door to door unscheduled service

Resident Air Passenger Mode Choice

Mode	ONT (2001)	LAX (2006)
Auto	91%	71%
Taxi/Limousine		9%

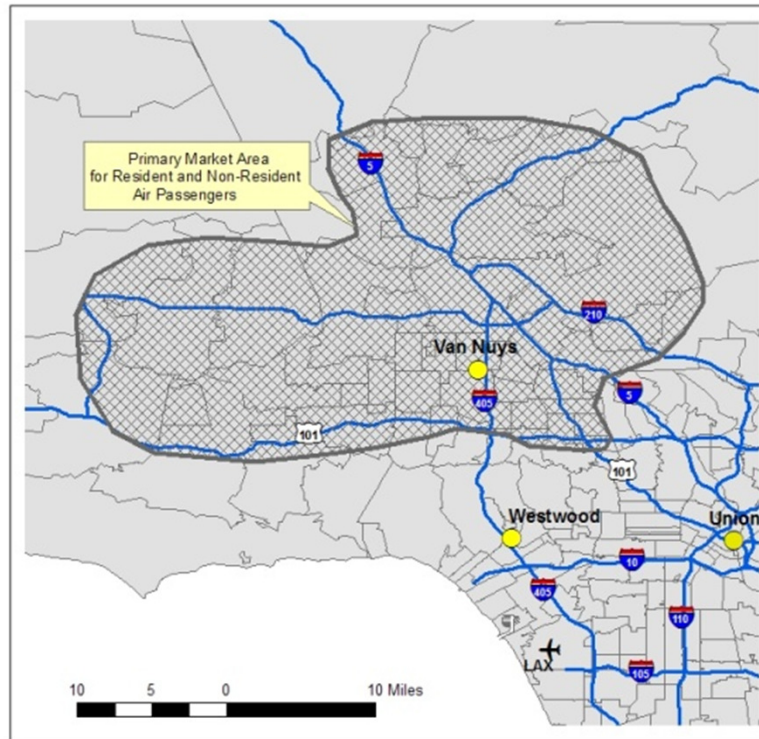
Source: ONT and LAX Air Passenger Survey Summary Reports, LAWA

- Travel time is impacted by: service frequency, number of transfers, and number of stops along the route.
- More competitive: Union Station FlyAway - downtown Los Angeles and LAX. Non-stop service.
- Less competitive: Metrorail – downtown Los Angeles and LAX. Three transfers (rail & bus); multiple stops.

Factors: Air Pax Public Transportation Choice

- **Location of boarding point**
 - **Along traditional travel route; minimal backtracking**

Van Nuys FlyAway Primary Market Area



Few Van Nuys FlyAway passengers originate in areas that require them to travel in the opposite direction from LAX to begin the FlyAway trip

Source: MarketSense Consulting based on the 2006 Los Angeles Air Passenger Survey and the 2008 Van Nuys Flyaway Survey



Factors: Air Pax Public Transportation Choice

- **Access to boarding point**
 - Sufficient parking at competitive rates with airport
 - Public transportation connections
 - Taxi availability for arriving passengers
 - Short-term parking for passenger dropoff and pickup

Factors: Air Pax Public Transportation Choice

- **Fares** - air passengers are not as price sensitive to ground access costs as commuters. Business travelers are more time sensitive and less price sensitive than pleasure travelers.

Customer Price Sensitivity, Ground Transportation					
Most Sensitive					Least Sensitive
Daily Commuters		Air Travelers			
		Pleasure			
				Business	



Airport Express Buses – FlyAway Concept

- **Level of service to attract air passengers**
 - The express bus service hours should provide sufficient coverage to serve arriving and departing passengers on the majority of flights
 - Trip frequency
 - For distance to airport between 10 and 25-30 miles:
at least 30 minute headway
 - For distance to airport above 25-30 miles:
at least hourly headway

Airport Express Buses – FlyAway Concept

- In general, an airport should serve a minimum of 18 to 20 million annual O&D passengers for a FlyAway type service to attract ridership levels needed for a financially feasible service
- Airport operators providing express bus service: LAWA (FlyAway) and Massport (Logan Express)

2010 Airport Express Bus Ridership, Airport Operated Systems				
Airport/Express Bus	MAP	Million O&D*	Bus Ridership**	% of O&D Pax
LAX: Van Nuys FlyAway	58.9	38.9	807,485	2.1%
LAX: Union Station FlyAway			413,975	1.1%
BOS: Braintree	27.4	25.5	482,269	1.9%
BOS: Framingham			328,818	1.3%
BOS: Woburn			242,311	1.0%
*Current O&D %: BOS=93%, LAX=66%. Provided by representatives from each airport June 2010.				
**Includes Air passengers and airport employees				

Airport Express Buses – FlyAway Concept

- Other similar services
 - Washington Flyer – Metro stop to Dulles Airport (IAD). Concession operation formerly operated by MWAA. 2010 airport traffic = 23.6 MAP



- Houston Airport Direct – Downtown Houston to Intercontinental Airport (IAH). Operated by transit operator. 2010 airport traffic = 40.5 MAP

Projects by Airport

Draft Project List, LAX

Project	Source	Notes
Union Station FlyAway	Existing	
Van Nuys FlyAway	Existing	
Hollywood Area FlyAway	LAWA Staff	May have future potential
Long Beach FlyAway	LAWA Staff	May have future potential
Anaheim Express bus to LAX	Consultant Recommendation	Potentially from ARTIC
Silver Line, El Monte to Union Station FlyAway	Consultant Recommendation	I-10 HOT Lanes offer improved travel times
Crenshaw/LAX Transit Corridor	2009 Metro LRTP	Planned for 2018
Exposition Light Rail Phase I	Under Construction	1. 2011 Opening 2. Will share a station with Crenshaw Line
Exposition Light Rail Phase II	2008 RTP, 2008 RTIP	1. Planned for 2015 2. Will share a station with Crenshaw Line

Projects by Airport

Draft Project List, LAX

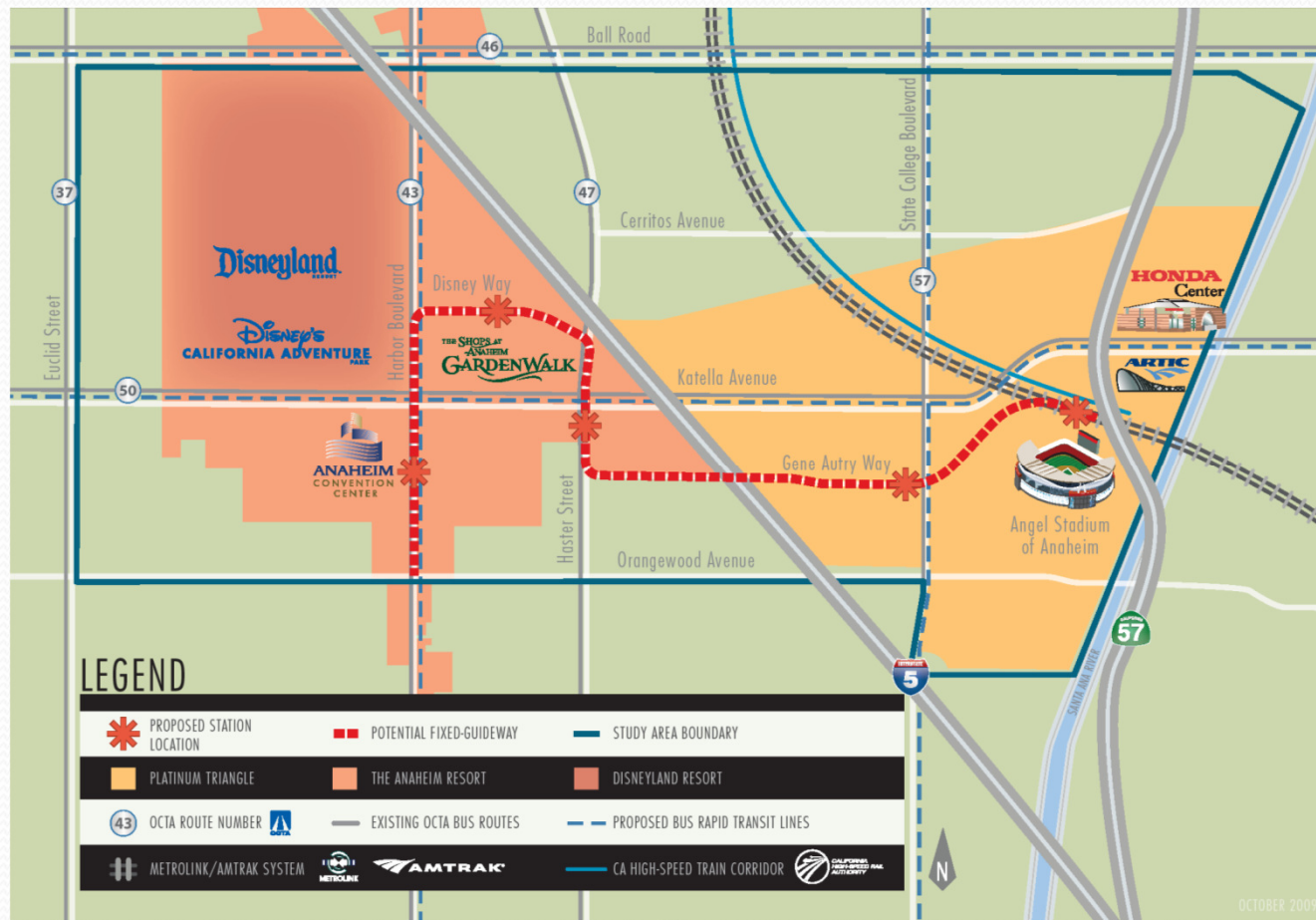
Project	Source	Notes
Green Line Extension to LAX	2009 Metro LRTP, Measure R Project	Metro study underway in Spring 2011
Regional Connector	2009 Metro LRTP, Measure R Project	Will reduce number of light rail transfers in downtown Los Angeles
South Bay Metro Green Line Extension	2009 Metro LRTP, Measure R Project	1. Redondo Beach Blvd. to South Bay Corridor 2. Planned for 2035
Metro Green Line Extension between Norwalk and Metrolink Station	2009 Metro LRTP - Strategic Unfunded	
Green Line from LAX to Santa Monica	2008 SCAG RTP - LA County Strategic Plan Projects	
Rail connection from LAX along I-405 to Sylmar	2008 SCAG RTP - LA County Strategic Plan Projects	Requires further research

Anaheim Regional Transportation Intermodal Center (ARTIC)

Will accommodate regional and local bus and rail connections. Projected opening date in 2014.



Anaheim Regional Transportation Intermodal Center (ARTIC)



Projects by Airport

Draft Project List, ONT

Project	Source	Notes
Gold Line Foothill Extension Phase 2a: Pasadena to Azusa	2008 RTP, 2008 SCAG RTIP - LA County Transit Projects (Amendments to 54)	Pasadena to Asuza (Phase 2A) under construction. Scheduled to open in 2014.
Gold Line Foothill Extension Phase 2b: Azusa to Montclair	2008 RTP, 2008 SCAG RTIP - LA County Transit Projects (Amendments to 54)	
Gold Line Foothill Extension Phase 2c: Montclair to ONT	2008 RTP Regional Strategic Plan Projects, 2009 LRTP Long Range Strategic Plan Supplement 1	
Express Bus, East of ONT: I-10 / I-215	Consultant Recommendation for Further Study	+/- 18 miles from ONT. Market analysis required.
Express Bus, West of ONT: I-10 / SR57	Consultant Recommendation for Further Study	+/- 15 miles from ONT. Market analysis required.
Express Bus Anaheim/ARTIC to ONT	ARTIC Concept allows for this connection	Service has not been planned
CA High Speed Rail: Los Angeles to San Diego via the Inland Empire with Stop at ONT	2009 LRTP Long Range Strategic Plan; www.cahighspeedrail.ca.gov	Unfunded; Corridor between San Bernadino County and San Diego not yet determined.

Projects by Airport

Draft Project List, SNA

Project	Source	Notes
Bus service, ARTIC/Anaheim to John Wayne Air	ARTIC Concept allows for this connection	Service has not been planned
Increased Metrolink Service to Tustin Station	OCTA Summer 2011 Telephone Conversation	1. By 2030, weekday trains serving Tustin station anticipated to increase from 39 to 70. 2. A good shuttle connection between Tustin Station and SNA could attract air passengers.

Projects by Airport

Draft Project List, BUR

Project	Source	Notes
Extend the MTA Orange Line from North Hollywood Red Line Station to Burbank Metrolink Station or Empire Area Transit Center	1. 2008 RTP, LA County Strategic Plan Projects 2. Conversation with Bob Hope Airport and OLDA Staff, June 2011	To be studied as part of the two year Bob Hope Airport Ground Access Study to begin in the fall of 2011.
Antelope Valley Metrolink Line: Station on Northern Boundary of Bob Hope Airport	Conversation with Bob Hope Airport and OLDA Staff, June 2011	To be studied as part of the two year Bob Hope Airport Ground Access Study to begin in the fall of 2011.
Bob Hope Airport to Glendale to Pasadena Transit Connection	Conversation with Bob Hope Airport and OLDA Staff, June 2011	To be studied as part of the two year Bob Hope Airport Ground Access Study to begin in the fall of 2011.
CA High Speed Rail: Palmdale to Los Angeles with Potential Stop at Bob Hope Airport	1. June 3, 2011 Powerpoint Presentation to CA High Speed Rail Conference 2. www.cahighspeedrail.ca.gov	1. Included in Phase 1; currently unfunded; 2. As of March 2011 BUR is being studied as a potential location.